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PN - JP2003123821 A 20030425  
 TI - FUEL CELL CARTRIDGE  
 IC - H01M8/06 ; C12M1/00 ; H01M8/00 ; H01M8/04  
 FI - C12M1/00&Z ; H01M8/00&Z ; H01M8/06&G ; H01M8/04&J  
 FT - 4B029/AA27 ; 4B029/BB02 ; 4B029/CC01  
       - 5H027/AA02 ; 5H027/BA01 ; 5H027/DD00 ; 5H027/DD03  
 PA - SHARP KK  
 IN - YAMAMOTO NORIMASA; KOMODA MUTSUOKO; SHIOMI NAOMASA; YOSHIE TOMOHISA; MORINISHI  
       YASU HARU  
 AP - JP20010316197 20011015  
 PR - JP20010316197 20011015  
 DT - I

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A - 2003-572776 [54]  
 TI - Cartridge for fuel cells used e.g. for mobile telephone, has chambers accommodating oxygen-containing hydrogen compound aqueous solution and liquid containing micro-organisms, which are reacted to produce hydrogen  
 AB - JP2003123821 NOVELTY - Cartridge (1) having a chamber (3) accommodating oxygen-containing hydrogen compound aqueous solution (5) which is supplied to another chamber (2) accommodating liquid containing micro-organisms (4), to produce hydrogen, is new.  
       - USE - The apparatus is useful as fuel cells used e.g. for mobile telephones.  
       - ADVANTAGE - The apparatus enables fuel cell to generate electric power efficiently.  
       - DESCRIPTION OF DRAWING(S) - The figure shows an outline block diagram of the cartridge.  
       - cartridge 1  
       - chambers 2,3  
       - liquid containing micro-organisms 4  
       - oxygen-containing hydrogen compound aqueous solution 5  
       - (Dwg.1/6)  
 IW - CARTRIDGE FUEL CELL MOBILE TELEPHONE CHAMBER ACCOMMODATE OXYGEN CONTAIN  
       HYDROGEN COMPOUND AQUEOUS SOLUTION LIQUID CONTAIN MICRO ORGANISM REACT  
       PRODUCE HYDROGEN  
 F - JP2003123821 A 20030425 DW200354 H01M8/06 006pp  
 IC - C12M1/00 ; H01M8/00 ; H01M8/04 ; H01M8/06  
 MC - D05-A03A D05-C L03-E04  
       - X16-C X16-C15  
 DC - D16 L03 X16  
 PA - (SHAF) SHARP KK  
 AP - JP20010316197 20011015  
 PR - JP20010316197 20011015  
 OPD - 2001-10-15  
 ORD - 2003-04-25  
 CPY - SHAF  
 FS - CPI;EPI  
 NC - 001  
 XA - C2003-155062  
 XP - N2003-455338

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 TI - FUEL CELL CARTRIDGE

**AB - PROBLEM TO BE SOLVED:** To generate hydrogen to be used as fuel for a fuel cell making use of microbes which generate hydrogen from water solution of oxygenated hydrocarbon compound.

**- SOLUTION:** The fuel cell cartridge is composed at least of two rooms, of which one contains water solution of an oxygenated hydrocarbon compound and the other contains liquid including microbes which generate hydrogen using an oxygenated hydrocarbon compound as energy source. The water solution of oxygenated hydrocarbon compound is supplied arbitrarily by a pump from one room to another and generated hydrogen is supplied to a negative electrode side of the fuel cell. Further, the hydrogen is generated to be supplied to the fuel cell by reforming the oxygenated hydrocarbon compound making use of function of microbes.

**I - H01M8/06 ; C12M1/00 ; H01M8/00 ; H01M8/04**

**PA - SHARP CORP**

**IN - YAMAMOTO NORIMASA; SHIOMI NAOMASA; MORINISHI YASU HARU; KOMODA MUTSUKO; YOSHIE TOMOHISA**

**ABD - 20030806**

**ABV - 200308**

**AP - JP20010316197 20011015**

**PL - 2003-04-25**

